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		Application Number	09/823,701
		Filing Date	30 March 2001
		First Named Inventor	Kenneth W. Aull
		Art Unit	2137
		Examiner Name	Kevin R. Schubert
Total Number of Pages in This Submission	12	Attorney Docket No.	NG(MS)7185NP

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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

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Signature			
Printed Name	Christopher P. Harris		
Date	4 January 2007	Reg. No.	43,660

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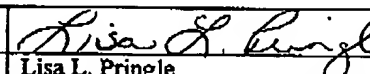
Signature			
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Applicant	:	Kenneth W. Aull
Serial No.	:	09/823,701
Filed	:	30 March 2001
For	:	*Preventing ID Spoofing with Ubiquitous Signature Certificates*
Group Art Unit	:	2137
Examiner	:	Kevin R. Schubert
Attorney Docket No.	:	NG(MS)7185NP

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REPLY BRIEF

Sir:

This Reply Brief is in response to the Examiner's Answer dated November 8, 2006. This Reply Brief addresses the Examiner's Answer concerning the appealed claims 1-16.

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I. **Appealed Claims 1 and 9**

In the Appeal Brief filed September 27, 2006 ("Appeal Brief"), Applicant's representative argued that the claimed element "informing a user that a new signature certificate will not be issued until the old signature certificate has been revoked," as recited in claims 1 and 9, is not taught or suggested by U.S. Patent No. 5,878,138 to Yacobi ("Yacobi") in view of the following URL: http://web.archive.org/web/20000303141313/www.txdps.state.tx.us/administration/driver_licensing_control/faq.htm, for the Texas Department of Public Safety ("Texas DPS"). Examiner responded to Applicant's representative's arguments in the Examiner's Answer dated November 8, 2006 ("Examiner's Answer"), by stating the following:

> Yacobi discloses that a new signature certificate will not be issued until the old signature certificate has been revoked. However, Yacobi appears to be silent as to "informing a user" about this procedure. Thus, Yacobi was not relied upon for anticipation under 35 U.S.C. 102. However, the procedural step of "informing a user" about a procedure is not novel, as evidenced by at least Texas DPS. (Examiner's Answer, Page 9).

Thus, is appears that the Examiner is suggesting that other references teach or suggest "informing a user" about a procedure. However, the Examiner has had ample time to cite other references during prosecution of the application and has failed to do so. Applicant's representative cannot consider references that were not cited by the Examiner. Thus the only reference that should be considered before the Appeal Board for informing a user about a procedure is Texas DPS.

Moreover, the Examiner appears to be contending that since (in the Examiner's opinion) the procedural step of "informing a user" about a procedure is not novel, that the claimed methodology and apparatus recited in claims 1 and 9 respectively, is obvious. Obviousness under 35 U.S.C. §103 requires more than the mere existence of an element of a claim in the prior art. As stated by the court in *Panduit Corp. v. Dennison Manufacturing Co.*, 1 U.S.P.Q.2d 1593 (Fed. Cir. 1987), at 1603:

> Virtually all inventions are necessarily combinations of old elements. The notion, therefore, that combination claims can be

> declared invalid merely upon finding similar elements in separate prior patents would necessarily destroy virtually all patents and cannot be the law under the statute, §103.

Thus, Applicant's representative respectfully submits that the Examiner is attempting establish obviousness based on an improper standard.

In the Examiner's Answer, the Examiner also stated the following:

> While Examiner is aware that a license and a certificate are different forms of identification Examiner has incorporated Texas DPS into Yacobi's system **merely for the procedural step of "informing a user."** (Examiner's Answer, Page 10).

From this statement by the Examiner, it appears that the Examiner is suggesting that since the Examiner has used Texas DPS in only a small portion of the rejection, that the ordinary burdens of establishing a prima facie case of obviousness should not apply in the present case. However, the Examiner has cited no authority for this holding. In fact, the Court of Customs and Patent Appeals has held that to establish *prima facie* obviousness of a claimed Invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 984, 180 U.S.P.Q. 580 (C.C.P.A. 1974). Accordingly, Applicant's representative respectfully submits that the amount the Examiner relies on a particular reference in an obviousness rejection is irrelevant for purposes of establishing a prima facie case of obviousness.

In the Appeal Brief, Applicant's representative argued that there is no motivation to combine and modify the teachings of Yacobi and Texas DPS in the manner suggested by the Examiner. In response, the Examiner stated the following:

> [T]he MPEP illuminates that a reference that is squarely contradictory would not provide *prima facie* motivation of obviousness (compare this with Article II MPEP 2143.01 in which a reference that merely discredits may be acceptable). (Examiner's Answer, Page 10).

Applicant's representative respectfully submits that the Manual Of Patent Examining Procedure (MPEP) does not have a force of law or a force of rules (See

MPEP, Foreword). Thus, it appears that the Examiner is attempting to cite a reference (the MPEP) that has no legal authority. Furthermore, the section of the MPEP cited by the Examiner includes an analysis of a reference discrediting another reference, which has been misinterpreted by the Examiner. Specifically, Article II MPEP §2143.01 cites *In re Young*. 927 F.2d 588, 18 U.S.P.Q.2d 1089 (Fed. Cir. 1991). In *Young*, the Federal Circuit considered a case of obvious under 35 U.S.C. §103 in light of five prior art references including U.S. Patent No. 2,619,186 to Carlisle ("Carlisle"). 927 F.2d 588, 590, 18 U.S.P.Q.2d 1089. The Appellant in *Young* presented an article by Knudsen ("Knudsen") that expressly discredited the teachings of Carlisle. 927 F.2d 588, 590, 18 U.S.P.Q.2d 1089. After weighing Carlisle and Knudsen, the Federal Circuit held that Knudsen was not so credible or persuasive of a contrary teaching that it would have deterred a skilled artisan from using the teachings of Carlisle. *Young* 927, F.2d 588, 592, 18 U.S.P.Q.2d 1089.

Applicant's representative respectfully submits that the Federal Circuit's holding in *Young* is not analogous to the instant application. Neither Texas DPS nor Yacobi make any mention whatsoever about the other reference. Thus, neither the Texas DPS reference nor the Yacobi reference "merely discredits" the other reference. Accordingly, the legal standard set forth by the Examiner for the finding of a motivation to combine Yacobi and Texas DPS is not applicable to the present application.

In the Appeal Brief, Applicant's representative argued that Yacobi and Texas DPS are non-analogous art. In response, the Examiner stated the following:

> First, while it may be held that two different forms may be outside the same field of endeavor in a particular case as in Wang, such is not always the case. For one example, two different forms of brushes (i.e. a hairbrush and a toothbrush) were ruled to be in the same field of endeavor (*In re Bigio*, 381 F.3d 1320, 1325-1326, 72 U.S.P.Q.2d 1209, 1211-12, CFed. [sic] Cir 2004).

Applicant's representative respectfully submits that the Federal Circuit's holding in *Bigio* is not analogous to the present application. In *Bigio* the Federal Circuit upheld a decision by the Board of Patent Appeals and Interferences finding that the Board reasonably construed a claimed hair brush to be in the same field of endeavor as a toothbrush. 381 F.3d 1320, 1327, 72 U.S.P.Q.2d 1209 (Fed. Cir.

2004). However, in *Bigio*, the Federal Circuit found that structural similarities between toothbrushes and small brushes for hair would have lead one skilled in the art working in the specific field of hairbrushes to consider all similar brushes including toothbrushes (emphasis added). 381 F.3d 1320, 1326, 72 U.S.P.Q.2d 1209. The Federal Circuit also found that it would have been readily apparent to one of ordinary skill in the art that a toothbrush may be easily used to brush hair (e.g., human facial hair). *Bigio* 381 F.3d 1320, 1326, 72 U.S.P.Q.2d 1209. In contrast to the holing in *Bigio*, in the present application, a driver's license, as disclosed by Texas DPS, could not be used interchangeably with a signature certificate (as recited in claims 1 and 9), particularly for the reasons discussed in the Appeal Brief (See e.g., Appeal Brief, Page 15). Furthermore, in contrast to the case decided in *Bigio*, a signature certificate has no structural similarities to a driver's license. Thus, the holding of the Federal Circuit in *Bigio* is not applicable to the present application. Accordingly, Texas DPS is not in the same field of endeavor as claims 1 and 9.

Moreover, the Examiner argues that assuming *arguendo* that Texas DPS is not the same field of endeavor as claims 1 and 9, Texas DPS is still reasonably pertinent to the problem being solved by claims 1 and 9. Specifically, the Examiner states that a) Texas DPS is not insecure, b) the methodology and apparatus recited in claims 1 and 9 respectively, have not been shown how to make a public key infrastructure (PKI) more secure and c) Appellant has not show why a user would not look to a method that has a lower level of security (See Examiner's Answer, Page 12). Applicant's representative respectfully disagrees with all three (a, b and c) findings by the Examiner for at least the following reasons.

Texas DPS is not a secure system. In Texas DPS, in order for a driver to obtain a duplicate license, such that the driver could posses two different licenses, the driver would merely be required to lie about losing his/her driver's license. In the Examiner's answer, the Examiner contends that it would be well known that a Driver's License office would verify the identity of the driver before issuing a duplicate. Assuming *arguendo* that what the Examiner contends is true, such a verification of identity would in no way prevent the same driver from receiving a duplicate driver's license. If the driver were to posses two driver's licenses, that driver could give the old driver's license to someone who looked similar to the driver

(e.g., a sibling of the driver) such that the other person could use the old driver's license to spoof the identity of the driver, for example, to purchase alcoholic beverages. Alternatively, a second person could obtain a duplicate driver's license by presenting the Driver's License office with falsified documents (e.g., the driver's social security card) that the Driver's License office requires to verify identity. Accordingly, the method of providing duplicate licenses in Texas DPS is not secure.

Moreover, the methodology and apparatus recited in claims 1 and 9 respectively, is at least more secure than the method disclosed in Texas DPS. The methodology and apparatus recited in claims 1 and 9 respectively, maintains a one-to-one correspondence between users of an enterprise and signature certificates. That is, in claims 1 and 9, each user of the enterprise has exactly one signature certificate. It is well known that allowing users of an enterprise to possess more than one signature certificate could allow an unauthorized user (e.g., a hacker) to obtain a second certificate and spoof the identity of an authorized user, without the knowledge of the authorized user, since the authorized user could still have a valid signature certificate. Therefore, maintaining the one-to-one correspondence between users of an enterprise, and signature certificates ensures that no duplicates of a signature certificate exist.

Furthermore, the vast differences in security levels between drivers license administration (e.g., Texas DPS) and a PKI infrastructure (e.g., claims 1 and 9) would not lead a person of ordinary skill to implement aspects of the driver license administration in the PKI infrastructure. There are extremely well known problems in driver's license administration, particularly with the ease at which fraudulent driver's licenses are obtain either through a driver's license office, or the illegal fabrication of fraudulent driver's licenses. A person of ordinary skill looking to implement a very secure system, such as a PKI, would not follow the model set forth by the administration of drivers licenses (in any state) when that person was trying to prevent ID spoofing due the well known pervasiveness of fraudulent driver's licenses. Thus, Texas DPS is non-analogous art with respect to claims 1 and 9.

II. Appealed Claims 5 and 13

In the Appeal Brief, Applicant's representative argues that when claims 5 and 13 are read as a whole, that a user recited in the respective methodology and apparatus does not have a signature certificate. In the Examiner's Answer, Examiner responds by stating:

> Nothing in the claim language requires that a user may not possess a signature certificate. To support his argument, Appellant presents two speculations: 1) that a user would not request a new certificate if he already had one and 2) if the user were to possess a certificate, he would be in the directory (Appeal Brief: 6/30/06, page 26 lines 7-11). Examiner believes both speculations to be outside the scope of patentability, as well as inaccurate. What is material to patentability is what is required by the claims, not what Appellant speculates could happen. Regarding 1) being inaccurate, there are numerous situations in which a user would request a new certificate even if the he already had one- his certificate might be about to expire (as in Yacobi), he might want to have more than one certificate, his certificate may be currently unavailable, etc. Regarding 2), a server would not requisitely indicate that the user is not in the directory if the users possess a certificate- perhaps the server cannot temporarily access directory information, perhaps the directory information has been hacked, lost or erased, perhaps the user obtained a certificate from another server, etc. (Examiner's Answer, Page 13).

Applicant's representative respectfully submits the situations which the Examiner gives in an effort to show that a user recited in claims 5 and 13 could possess a certificate are impossible within the scope of the combined elements of claims 5 and 13, when claims 5 and 13 are read as a whole. Specifically, claims 5 and 13 recites a directory containing information of users of an enterprise. Upon a registration server receiving information from the directory indicating that the identified user is not in the directory, the registration server informing the user that a signature certificate will not be issued, thereby preventing an unauthorized user from ID spoofing to obtain a valid signature certificate and maintaining a one-to-one correspondence between users of the enterprise and signature certificates.

When claims 5 and 13 are read as a whole, it is clear that every user of the enterprise has exactly one certificate, since a one-to-one correspondence between users of the enterprise and signature certificates is maintained. Additionally, when

claims 5 and 13 are read as whole, the recited directory contains reference information for members of the enterprise. Furthermore, when claims 5 and 13 are read as a whole the user requesting a new signature certificate is not in the recited directory. Thus, in claims 5 and 13, the user requesting the signature certificate is not a member of the enterprise, because the user is not in the directory. Since the user is not a member of the enterprise, the user cannot possess a signature certificate, since a one-to-one correspondence between users of the enterprise and signature certificates is maintained.

In the Examiner's answer, the Examiner argues that even if the user already possessed a signature certificate, the user still could request another certificate. Applicant's representative respectfully submits that such a situation is impossible within the scope of the elements recited in claims 5 and 13. In claims 5 and 13, if the user already posses a certificate, that user is a member of the enterprise, because a one-to-one correspondence is maintained between users of the enterprise and signature certificates. Additionally, in claims 5 and 13, if the user is a member of the enterprise, the user is in the directory, because the directory maintains reference information of users of the enterprise. Furthermore, in claims 5 and 13, if the user is in the recited directory, the registration server would not receive information from the directory indicating that the identified user is not in the directory. Thus, in claims 5 and 13, the user requesting a new signature certificate does not possess a signature certificate.

Furthermore, in the Examiner's answer, the Examiner attempts to illustrate a situation that could arise under claims 5 and 13 where a server would not requisitely indicate that the user is not in the directory if the user possessed a certificate. The situations suggested by the Examiner includes a (registration) server that cannot temporarily access directory information, for example if, the directory information has been hacked, lost, erased or the user obtained a certificate from another server. Applicant's representative respectfully submits that such a situation is not within the scope of claims 5 and 13 for at least the following reasons.

In claims 5 and 13, the registration server receives information from the directory indicating that the identified user is not in the directory. For the reasons discussed above, if the user is not in the directory, the user is not a member of the

enterprise, and thus, the user does not possess a signature certificate. Furthermore, if the registration server were to receive information that a user is not in the directory, but the user possessed a signature certificate (e.g., the directory information were lost, erased or hacked), the recited one-to-one correspondence between users of the enterprise and signature certificates would be broken, because users of the enterprise are in the directory. Therefore, the situation contemplated by the Examiner would be outside of the scope of claims 5 and 13, since claims 5 and 13 maintain a one-to-one correspondence between users of the enterprise and signature certificates.

In the Appeal Brief, Applicant's representative argued since the user recited in claims 5 and 13 does not posses a signature certificate, Yacobi does not teach or suggest allowing a user to access a registration server, as recited in claims 5 and 13. In the Examiner's Answer, the Examiner also states:

> Appellant asserts that Yacobi does not teach a registration server receiving information from a user and also receiving a request by the user for a new signature certificate. Appellant apparently basis [sic] this conclusion on the fact that Yacobi teaches a user already possessing a certificate. Examiner respectfully submits that the fact that a user may possess a certificate does not preclude the alleged deficient claim limitation from being met in any form or fashion. (Examiner's Answer, Page 13).

Applicant's representative respectfully asserts that for the reasons discussed in the Appeal Brief, and clarified above, in claims 5 and 13, the user that requests a new signature certificate does not possess a signature certificate. That is, in the methodology and apparatus recited in claims 1 and 9 respectively, a user is allowed access to a registration server, and is allowed to request a new signature certificate even thought the user does not posses a signature certificate, and thus, the user is not a member of the enterprise. Yacobi is completely devoid of any teaching or suggestion for allowing a user to access a registration server when a user does not possess a signature certificate, since as discussed in the Appeal Brief, in Yacobi, possession of an electronic wallet (which already includes a certificate) is required in order to access a certification authority (See Appeal Brief, Page 27). Thus, the possessor of an electronic wallet (since the electronic wallet contains a certificate)

disclosed in Yacobi does not correspond to the user recited in claims 1 and 13, because the user recited in claims 1 and 13 does not possess a signature certificate. Accordingly, Applicant's representative maintains that Yacobi taken in view of Vaeth does not teach or suggest claims 5 and 13, when claims 5 and 13 are read as a whole.

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CONCLUSION

In view of the foregoing remarks, Applicant's representative respectfully submits that the present application is in condition for allowance. Applicant's representative respectfully requests reconsideration of this application and that the application be passed to issue.

Please charge any deficiency or credit any overpayment in the fees for this amendment to our Deposit Account No. 20-0090.

Respectfully submitted,

Date 4 January 2007

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